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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/564,606	05/18/2006	David Hirst	DEH-0019	3385
23413	7590	12/31/2008	EXAMINER	
CANTOR COLBURN, LLP			BASS, DIRK R	
20 Church Street			ART UNIT	
22nd Floor			PAPER NUMBER	
Hartford, CT 06103			4132	
			NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/564,606	HIRST, DAVID	
	Examiner	Art Unit	
	DIRK BASS	4132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 Jan, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12 Jan, 2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The substitute specification submitted on 12 January 2006 is acknowledged. The substitute specification has been entered. It is understood, by applicant's representations upon submitting the substitute specification, that the only difference between the substitute specification and the originally filed specification are the additions specified in the Amendments to the Specification, filed on 12 January 2006.

Claim Objections

2. Claims 25-44 are objected to because of the following informalities: claims 25-44 reference cancelled claims 1-24. Appropriate correction is required.
3. Regarding claim 43, the "system" in line 1 of claim 43 should be the "apparatus". For the purposes of examination, the examiner is interpreting the system to be the apparatus disclosed in claim 42.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:
- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 25-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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6. Regarding claim 25, it is unclear whether the switching means directs samples according to geographical location or time of year, or for switching the accumulating means on or off depending on location or selected times. Both instances of the and/or language renders the claim indefinite.

7. Claim 36 recites the limitation "container" in line 4 of claim 36. There is insufficient antecedent basis for this limitation in the claim. For the purposes of examination, the examiner is interpreting the "container" to be the housing disclosed in claim 25.

8. Regarding claim 41, it is unclear how an interface between a mobile telephone that communicates via mobile telephone communications and a tamper proof housing can exist to be sealed and secure.

9. Regarding claim 42, it is unclear from what the tamper proof housing is being removed. For the purposes of examination, the examiner is interpreting the tamper proof housing to be removed from the tamper proof cabinet of claim 31.

10. Regarding claim 43, it is unclear whether the "removable device" refers to the apparatus of claim 25 or to the external device (48) of claim 42. For the purposes of examination, the examiner is interpreting the removable device to be the tamper proof housing.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 25-31, 34, 36-37, 40, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendren et al., WO 0190741 in view of Morris et al., WO 0146689.

14. Regarding claim 25, Hendren ('741) discloses an apparatus for measuring emissions (see abstract) comprising:

- a. Means for obtaining a sample flow (see "probe 15", fig. 2), i.e. a sample probe as disclosed in applicant's specification (pg. 4, ¶ 56, l. 4), the sample flow being a controlled proportion of the total emissions to be measured (see "small portion of raw exhaust", pg. 7, l. 8-9);
- b. Means for accumulating said sample flow in a housing (see "sampling media 90, 92, 94", fig. 2 and "sample media holder", pg. 8, l. 26), i.e. a collection unit as disclosed in applicant's specification (pg. 6, ¶ 82), said housing containing one or more known chemical reagents (see "2, 4-DNPH prepared cartridge", pg. 8, l. 30) with which the accumulated samples react to provide a measure of one

or more selected components within said sample (see “aldehydes and ketones”, pg. 8, l. 30), said means for accumulating comprising a plurality of separate accumulation devices, each containing at least one respective chemical reagent (see “sample media holder”, pg. 8, l. 26 – pg. 9, l. 3) characterized in that said housing is tamper-proof (see housing of “sampling media 90, 92, 94”, fig. 2); and

c. Switching means (see “system controller 50” and “mass flow controllers 80, 82, 84”, fig. 2), i.e. a switching unit as disclosed in applicant’s specification (pg. 9, ¶ 111, l. 12), adapted to direct the sample to one or other of said accumulation devices (see “sample media holder”, pg. 8, l. 26-27) and to switch the accumulating means on or off at selected times (see pg. 9, l. 5-22 and pg. 10, l. 1-3).

15. Lacking any further structure beyond being “mechanically secure” as disclosed in applicant’s specification (pg. 10, ¶ 121, l. 1-2) defining a housing to be tamper-proof; it is considered by the examiner that the housings referenced above constitute tamper-proof housings by being mechanically secure from tampering.

16. Hendren (‘741) fails to disclose an apparatus comprising a means for detecting the location of the apparatus.

17. Morris (‘689) discloses an apparatus for measuring emissions (see abstract) comprising a means for detecting the location of the apparatus (see “communication receiver 120”, fig. 1, and pg. 2, l. 32 – pg. 3, l. 4), i.e. a global positioning system as disclosed in applicant’s specification (pg. 8, ¶ 105, l. 2), in order to synchronize

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emissions data and geographic location to ensure compliance with international emissions regulations (see abstract and pg. 1, l. 10-15).

18. At the time of the invention, it would have been obvious to one skilled in the art to combine the global positioning system of Morris ('689) with the apparatus of Hendren ('741) in order to synchronize emissions data and geographic location to ensure compliance with international emissions regulations.

19. Regarding claim 26, Hendren ('741) further discloses a cleaning arrangement (see "dilution tunnel 20", fig. 2) to remove components which might otherwise interfere with the accumulation of the component to be measured. It is implicit in Hendren ('741) that the dilution tunnel removes components which may interfere with accumulation devices by forming an intermediary passageway between the raw exhaust 11 and probes 70, 72, 74.

20. Regarding claim 27, Hendren ('741) further discloses an automatic time determining system which is set to switch the device on or off at selected times (see "control system 50", fig. 2 and pg. 9, l. 31 - pg. 10, l. 3).

21. Regarding claim 28, Hendren ('741) fails to disclose an apparatus wherein said means for obtaining the sample flow is adapted to take extracts from the exhaust ducts of several engines and then to mix them, in proportion to the flow from each exhaust duct, and then pass the combined sample to the means for accumulating.

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22. Morris ('689) discloses a system including a monitor having several sensors to monitor a plurality of engines (pg. 2, l. 19-20). It is implicit in Morris ('689) that having a system capable of monitoring emissions from a plurality of engines is advantageous in a vessel employing more than a single engine which contributes to total emissions.

23. At the time of the invention, it would have been obvious to one skilled in the art to combine the multiple engine emissions meter of Morris ('689) with the apparatus of Hendren ('741) in order to advantageously monitor a vessel employing more than a single engine which contributes to total emissions.

24. Regarding claim 29, Hendren ('741) fails to disclose an apparatus comprising a display means for providing a visual indication of said measure.

25. Morris ('689) discloses an apparatus comprising a display means, i.e. a display chemical accumulation device as disclosed in applicant's specification (pg. 7, ¶ 85, l. 7-8), for providing a visual indication of emissions measurements (see "emission monitor 110", fig. 1 and "visible emission monitor", pg. 2, l. 21-22) in order to allow a user to review data as it is being acquired from the emissions monitor and positioning system.

26. At the time of the invention, it would have been obvious to combine the display means of Morris ('689) with the apparatus of Hendren ('741) in order to provide a visual indication of measurements allowing a user to review data acquired from the emissions monitor and positioning system.

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27. Regarding claim 30, Hendren ('741) further discloses an apparatus wherein said tamper-proof housing is a tamper-proof removable canister (see pg. 9, l. 5). The sample media holders disclosed in Hendren ('741) are considered to be tamper-proof under the same reasoning disclosed in paragraph [15].

28. Regarding claim 31, Hendren ('741) discloses an apparatus wherein said canister (see "sample media 90, 92, 94", fig. 2) is locked inside a tamper-proof cabinet (see "housing 59", fig. 1). The cabinet disclosed in Hendren ('741) is considered to be tamper-proof under the same reasoning disclosed in paragraph [15].

29. Regarding claim 34, Hendren ('741) discloses an apparatus provided with its own power supply (see "power supply 60", fig. 2).

30. Regarding claim 36, Hendren ('741) discloses an apparatus wherein said tamper-proof housing has an inlet port adapted to receive the sample flow of emissions containing components to be measured (see inlet of "sample media 90, 92, 94", fig. 2), wherein the inlet port is adapted to be sealed when said container is disconnected from receiving emissions (see "sample media holder", pg. 8, l. 26 – pg. 9, l. 11). It is implicit in Hendren ('741) that the inlet port of the "sample media holders" is adapted to be sealed on the basis that when disconnected from the apparatus, an aperture remaining on the sample media holder is capable of being sealed by either a stopper of suitable size and shape, or an incoming tube of suitable size and shape.

31. Regarding claim 37, Hendren ('741) discloses an apparatus wherein said housing (see "sample media holder", pg. 8, l. 26 – pg. 9, l. 11) is adapted to be connected to an external device and to communicate with said external device to

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provide information about the emission measures. It is implicit in Hendren ('741) that when removed, the sample media holders containing emissions components are capable of being adapted to an external device that detects gaseous components via the inlet port and chemically communicating to said external device via emitted chemical components stored in sample media holders.

32. Regarding claim 40, Hendren ('741) discloses an apparatus wherein an interface between the housing (see "sample media 90, 92, 94", fig. 2) and the means for obtaining the sample (see "probe 15", fig. 2) is sealed and secure. It is implicit in Hendren ('741) that the connections between the probe and the sample media via an aperture are sealed and secure by way of connections being of complementary size and shape sealing said aperture and allowing all emissions to flow to said sample media.

33. Regarding claim 42, Hendren ('741) discloses an apparatus wherein the tamper-proof housing is removable under authorized conditions only (see pg. 9, l. 5) and transportable and adapted to be connected to an external device under authorized conditions only. It is implicit in Hendren ('741) that the sample media holders, once removed by, are capable of being adapted to connect to an external device via the aperture which receives emissions samples.

34. The (preamble/limitation) "under authorized conditions only" is deemed to be a statement with regard to the intended use and is not further limiting in so far as the structure of the product is concerned. In article claims, a claimed intended use must result in a **structural difference** between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art (see MPEP §

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2111.02). In the instant case, under authorized conditions only can be any situation where one is capable of transporting and connecting the housing to an external device.

35. Claims 32-33, 38-39, and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendren et al., WO 0190741 in view of Morris et al., WO 0146689 and in further view of Gentry et al., US 20020147919.

36. Regarding claims 32-33, Hendren ('741) in view of Morris ('689) fails to disclose an apparatus that communicates to an external device via mobile telephone communications, or an apparatus that is unlocked by an encrypted mobile telephone communication signal from a mobile telephone.

37. Regarding claims 38-39, Hendren ('741) in view of Morris ('689) fails to disclose an apparatus wherein said housing is adapted to be connected to an external device and to communicate with said external device to provide information about the emission measures, wherein said communication is done via mobile telephone communication.

38. Regarding claims 43-44, Hendren ('741) in view of Morris ('689) fails to disclose an apparatus wherein the removable device is provided with encrypted identification means wherein the removable device is a tamper-proof housing provided with means for locking the housing, and means for unlocking the housing by means of a signal from a mobile telephone.

39. Regarding claims 32-33, Gentry ('919) discloses a tamper proof cabinet (see "tamper proof enclosure 10", fig. 1) adapted to be unlocked by a signal from a wireless

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communication means, wherein the wireless communication means is a mobile telephone (see pg. 3, ¶ 34).

40. Regarding claims 38-39, Gentry ('919) discloses an apparatus wherein said housing (see "tamper-proof enclosure 10", fig. 1) is adapted to be connected to an external device by mobile telephone communication (see "remote control 36", fig. 4 and "mobile telephone", pg. 3, ¶ 34) wherein said mobile telephone communication is encrypted (see "code 17", fig. 1, and pg. 3, ¶ 34).

41. Regarding claims 43-44, Gentry ('919) discloses an apparatus wherein said housing (see "tamper-proof enclosure 10", fig. 1) is provided with means for locking the housing (see "electronically locked door", pg. 1, ¶ 12), and means for unlocking the housing by means of a signal from a mobile telephone (see "remote control 36", fig. 4, and pg. 3, ¶ 34).

42. At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the wireless communicating and locking means of Gentry ('919) with the apparatus of Hendren ('741) in view of Morris ('689) in order to protect the contents of the tamper proof cabinet from unauthorized access.

43. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendren et al., WO 0190741 in view of Morris et al., WO 0146689 and in further view of Tibbals, US 5343906.

44. Hendren ('741) in view of Morris ('689) is relied upon in the rejection of claim 34 above.

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45. Hendren ('741) in view of Morris ('689) fails to disclose an apparatus wherein said power supply is a battery.

46. Tibbals ('906) discloses an apparatus for measuring emissions (see col. 1, l. 46-50) wherein said power supply is a battery (see "battery 73", fig. 4, and col. 5, l. 16). It is implicit in Tibbals ('906) that a battery is enclosed within the apparatus to provide continuous power to the overall system and to prevent interruptions of any ongoing measurements of emissions.

47. At the time of the invention, it would have been obvious to one skilled in the art to combine the battery of Tibbals ('906) with the apparatus of Hendren ('741) in view of Morris ('689) in order to provide an apparatus with continuous power to the overall system and to further prevent interruptions of any ongoing measurements of emissions.

Conclusion

48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DIRK BASS whose telephone number is (571)270-7370. The examiner can normally be reached on Monday - Thursday 10am-4pm.

49. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MIKE LAVILLA can be reached on 5712721539. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

50. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DRB/
DIRK BASS
Examiner, Art Unit 4132
December 22, 2008

/Alicia Chevalier/
Primary Examiner, Art Unit 1794